

**STATE OF MISSOURI**  
**FISCAL YEAR 2005**  
**ANNUAL RECYCLING REPORT**



*Prepared By:*  
*State of Missouri, Office of Administration*

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# Acknowledgements

*Published by the State of Missouri, Office of Administration, Division of Purchasing and Materials Management in consultation with the Department of Natural Resources Solid Waste Management Program and the Environmental Improvement and Energy Resources Authority.*

*Special thanks to the Missouri Interagency Recycling Committee (MIRC), department recycling coordinators and purchasing staff who contributed to this report. The Missouri State Recycling Program also wants to thank all state employees for their ongoing efforts to reduce, reuse, recycle, and buy recycled-content products.*

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**OFFICE OF ADMINISTRATION**

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**Michael Keathley**

Commissioner

To the Members of the General Assembly of the State of Missouri,

In accordance with RSMo 34.031, the Office of Administration in consultation with the Department of Natural Resources is submitting the Fiscal Year 2005 (FY05) Annual Recycling Report to summarize state government's accomplishments in the areas of recycling, waste reduction, and recycled content procurement for the period of July 1, 2004 through June 30, 2005.

State law directs state agencies to implement policies for recycling, waste reduction, and procurement of recycled content products. The State Recycling Program, administered by the Office of Administration, Division of Purchasing and Materials Management, is responsible for assisting state agencies in these areas. The State Recycling Coordinator works cooperatively with the Missouri Interagency Recycling Committee (MIRC) to facilitate recycling and waste reduction by state employees.

The Office of Administration is pleased to report that FY05 marked the second year in a row state government realized record revenues from the collection of recyclable materials. State government recycling efforts continue to reduce the amount of waste generated at state facilities and the related costs of waste disposal. On pages 11 – 13 of this year's report the achievements of several agencies in the area of recycling and waste reduction are summarized.

We appreciate the support of the General Assembly in our recycling efforts.

Sincerely,

Michael Keathley  
Commissioner of Administration

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# I. Missouri State Recycling Program Structure

## What is the Missouri State Recycling Program?

The Missouri State Recycling Program (**MSRP**) was established in 1989 when legislation added sections 34.031 and 34.032 to Chapter 34 of the MO Revised Statutes. The purpose of the **MSRP** is to assist State of Missouri government agencies with:

- **Procurement** of products manufactured with recycled materials.
- Coordinating **waste reduction** strategies.
- Overseeing the **collection** of recyclables by establishing recycling services contracts.

## Who is the MSRP?

There are three components to the State Recycling Program's "organizational chart".

The **state recycling coordinator** is dedicated to the planning and administration of recycling and waste reduction activities.

The **Missouri Interagency Recycling Committee** serves an important purpose by providing input on recycling initiatives and communicating with state employees about various recycling programs.

The efforts of **state employees** to recycle insures the success of any recycling initiative. State employees that recycle are considered a part of the State Recycling Program.



## What is the Missouri Interagency Recycling Committee?

The Missouri Interagency Recycling Committee (**MIRC**) was established in 1994. It was recognized the **MSRP** needed a way to communicate procurement and recycling policies throughout state government. **MIRC** is a vital component of the **MSRP** and meets quarterly to discuss issues dealing with recycling collection, waste reduction, recycling market conditions and recycled product procurement.

## Who is MIRC?

The Recycling Committee is composed of representatives from various state departments (executive, judicial, and legislative). To learn more about recycling in your department please contact your **MIRC** member. A list of members can be found on page 6.

# Missouri Interagency Recycling Committee (MIRC) Members

EXECUTIVE DEPARTMENT	MIRC MEMBER	PHONE NO.	E-MAIL ADDRESS
Office of Administration Div. of Purch. & Materials Mgmt. State Recycling Program HST, Room 630/P.O. Box 809 Jefferson City, MO 65102	Rob Didriksen State Recycling Coordinator	573/751-3384	Robert.Didriksen@oa.mo.gov
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Dept. of Corrections	Judy Crocker	573/526-6424	Judy.Crocker@doc.mo.gov
Dept. of Economic Development	Ron Doerhoff Linda Hartman Carla Sarver	573/751-3959 573/751-2048 573/751-2816	Ron.Doerhoff@psc.mo.gov Linda.Hartman@ded.mo.gov Carla.Sarver@ded.mo.gov
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Office of the Secretary of State	Michael Shellman	573/751-2397	Michael.Shellman@sos.mo.gov
Office of the State Treasurer	Nancy Tennison	573/751-0912	Nancy.Tennison@treasurer.mo.gov
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Supreme Court	Don Dickey Lisa Hentges	573/751-7311 573/751-7334	Ddickey@osca.state.mo.us Lhentges@osca.state.mo.us
<b>LEGISLATIVE BRANCH</b>			
House of Representatives	Brad Werner	(573)751-4555	Brad.Werner@house.mo.gov

## II. FY05 Overview: Collection of Recyclables

### Local Recycling Services Contracts

In FY05, the Missouri State Recycling Program (MSRP) provided contract administration for three local recycling services contracts. Areas covered by these contracts included Jefferson City, Kansas City, and Springfield. These contracts provided state agencies an option to recycle office paper and cardboard at no cost.

#### Jefferson City

As the center of state government and having the highest concentration of state employees, state agencies in Jefferson City generated significant amounts of recyclable materials in FY05. The Jefferson City Recycling Services contract offered state agencies an opportunity to recycle mixed office paper, cardboard, and aluminum. In FY05 the MSRP concentrated on increasing collection of cardboard and aluminum by agencies in Jefferson City.

The MSRP began working to organize collection of aluminum cans in FY04. With assistance from OA Division of Facilities Management, Design and Construction, the custodial contractor, building tenants, and the recycling contractor a collection system was established in the Truman Building—the largest office building in Jefferson City. As the system matured the recycler began collecting cans from other buildings. By the end of FY05, nineteen buildings in the Jefferson City area had utilized the recycling services contract to recycle aluminum cans. This resulted in the largest measured collection of aluminum cans for one year. (see chart to the right)

Jefferson City cardboard recycling rates increased in FY05 largely due to an increase in the number of state facilities utilizing a no-cost cardboard recycling service contract. Sixteen new locations were added to the cardboard collection route in FY05 which resulted in an estimated 58,032 lbs. of **loose** cardboard recycled.

The Truman building is the only office building in Jefferson City with a cardboard baler. Collection of **baled** cardboard at the Truman building increased 78% from FY04 to FY05. Total cardboard recycled (baled & loose) in FY05 by agencies in Jefferson City was 109,730 lbs. (see chart to the right)

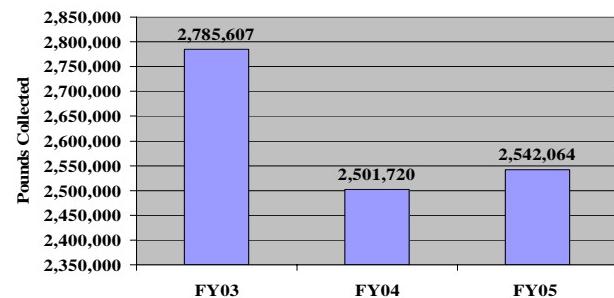
#### Kansas City

There was significant growth in FY05 with collection of recyclable materials by state offices in the Kansas City area. State employees collected over 8 times as much cardboard and more than 7.5 times as much mixed office paper in FY05 as compared to FY04. (see charts to the right)

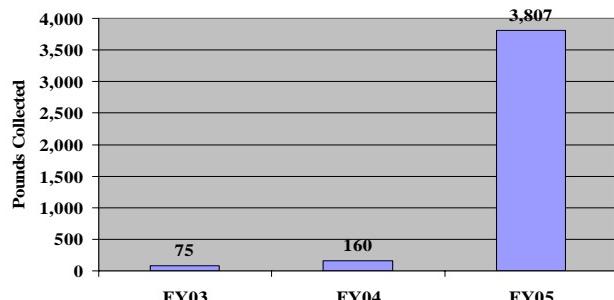
#### Springfield

Collection of mixed office paper and cardboard by state agencies in the Springfield area showed a decline in FY05 as compared to FY04. (see charts to the right) It is difficult to interpret the drop in collection figures due to a lack of reporting data.

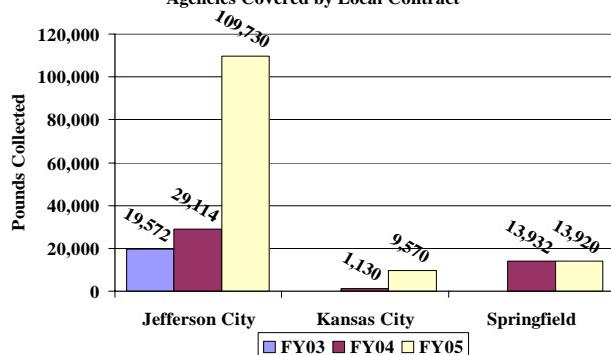
FY03-FY05 Comparison of Paper Recycled by Agencies in Jefferson City



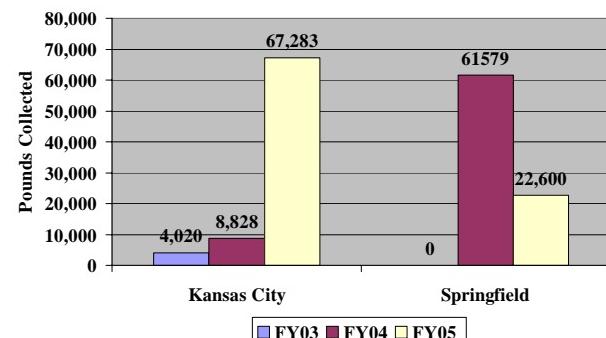
FY03 - FY05 Comparison of Aluminum Collected in Jefferson City



FY03-FY05 Comparison of Cardboard Recycled by Agencies Covered by Local Contract



FY03-FY05 Comparison of Paper Recycled by Agencies in Kansas City & Springfield



# Statewide Recycling Services

The Missouri State Recycling Program (MSRP) coordinated two no-cost statewide recycling services for state agencies in FY05. These convenient services allowed state employees to recycle inkjet cartridges or rechargeable batteries from work or home.

## Rechargeable Battery Recycling

FY05 marked the second year the MSRP has coordinated rechargeable battery recycling for state agencies. As noted in the chart to the right, pounds of batteries recycled increased over 200% from FY04 to FY05. The number of sites registered to recycle rechargeable batteries increased 33% in FY05 bringing the total number of locations statewide to fifty-six.

This chart also illustrates the results of improved reporting that was realized in FY05. Data from FY04 was only available as a cumulative number which reflected the combined efforts of all state agencies. By working with the recycling services provider to standardize site registrations, the MSRP was able to sort data by department for FY05.

Although the MSRP does not receive any revenue from rechargeable battery recycling, this service provides value through its convenience, reporting, and the ease with which it allows state employees to keep toxic chemicals out of the environment.

## Shredding & Records Disposal Contract

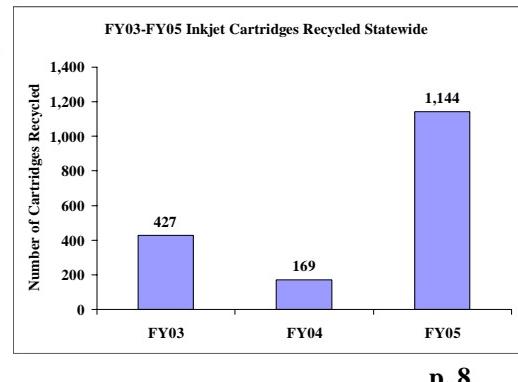
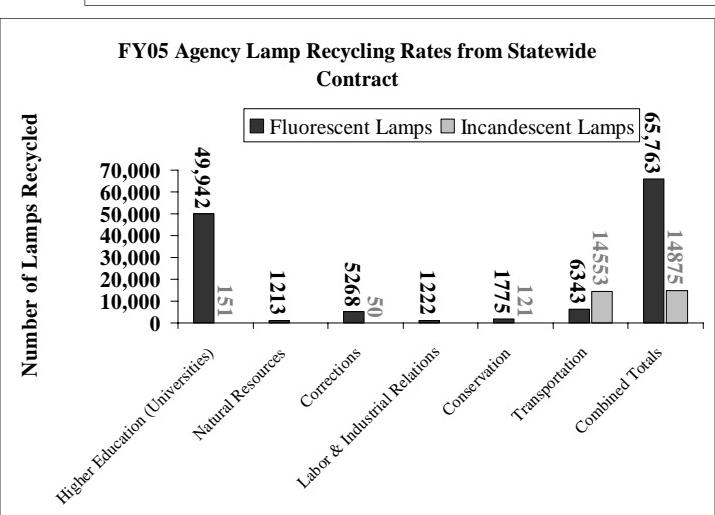
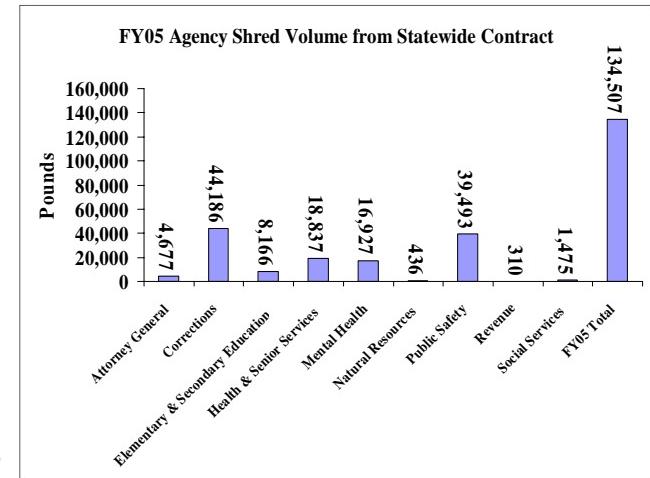
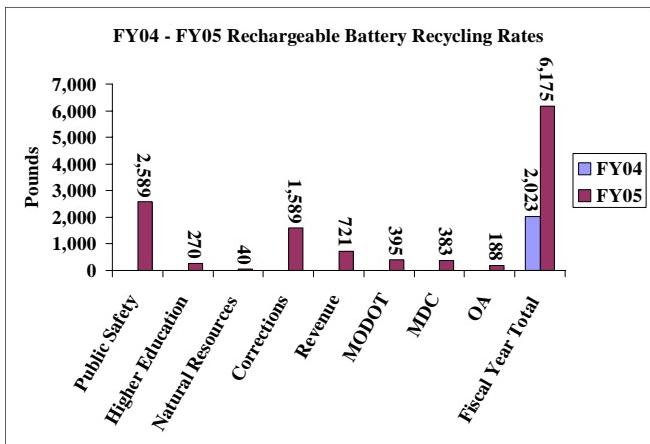
This contract provided state agencies throughout Missouri an opportunity to have confidential documents destroyed for a fee. Cost varied depending on volume to be destroyed and/or location of state agency. The chart to the right shows how many pounds were shredded by agencies utilizing this contract from January—June, 2005. State agencies are not required to use this contract so information reported here only represents a portion of the state's overall volume of records shredded.

## Fluorescent Lamp & Ballast Recycling Contract

State contract C305116001 allowed state agencies to recycle many different types of hazardous materials for a fee. This contract provided recycling services for items such as fluorescent lamps and ballasts. Fluorescent lamps contain mercury vapors and ballasts contain PCB's—both of which have been determined to be hazardous to human health. The chart to the right shows the number of fluorescent lamps and incandescent lamps recycled by each department using the statewide contract in FY05.

## Inkjet Cartridge Recycling

The MSRP continued to provide inkjet cartridge recycling supplies to requesting agencies. The number of cartridges recycled in FY05 increased substantially from the previous year. (see chart to right) This can be attributed to improved reporting from the vendor. The MSRP also received a small amount of revenue from cartridges recycled each month in FY05.



## FY05 Department Reports of Materials Recycled

Number of Pounds Recycled	Attorney General	Supreme Court	Agriculture	Conservation	Corrections	Economic Development	Elementary & Secondary Education	Health & Senior Services	Higher Education	Insurance	Labor & Industrial Relations	Mental Health	Natural Resources	Office of Administration	Public Safety	Revenue	Social Services	Transportation	Totals by Material
Aluminum		225		322	136,765				16,236		17,130	1,486	76	120		460	35,000	211,627	
Ballasts				1,271					8,262		1,197							1,043	11,773
Batteries-Non Recharge				50	300				3,914			9	55		1,026			150	5,504
Batteries-Recharge				790	2,007				580				40	188	3,389	721		395	8,110
Batteries-Lead Acid			30	162	784				1,097			100		479	3,157			3,550	9,359
Capacitors									31										31
Cardboard				3,750	1,536,176				1,057,108			20,800	3,886		300				2,755,240
Computer Monitors					12				50				154		35,680				35,896
Food-Yard Waste			350,000		1,600,679				151,200			4,710	3,090		500				2,110,179
Glass									4,200				746						4,946
Magazines & Catalogs				1,500	72,680							35,818	769		525		100		111,392
Mercury Switches									82										82
Mixed Office Paper	4,677	96,300		8,200	242,398		8,166	18,837	1,478,623			63,097	30,009		41,993	656,418	7,743		5,288,338
Newsprint		5,200		760	1,213				320,533			42,660	2,265		500		300		373,431
Plastic				230	45,084								785	12			25		46,136
Rubber, Waste Tires			135	6	1,051							105	220		190,258			1,300,000	11,782,755
Scrap Metal			11,000	1,100	269,516	249			188,200			950	92	1,162	144,027			180,000	796,296
Styrofoam														1,200					1,200
Telephone Books		42		90					15,000	40		2,454	655		20		3,000	4,100	25,401
Textiles					39,600														39,600
Tin / Steel Cans				90	673,494								503		5				674,092
Totals by Agency	4,677	101,767	361,165	18,321	4,621,759	249	8,166	18,837	3,245,116	40	1,197	187,833	44,755	3,117	421,500	657,139	11,628	1,524,238	

**Totals by Material:** In addition to agency reported figures, the following aggregate figures reported by contract and other centralized sources of data have been added to "totals by material".

Aluminum (contract) = 3807 lbs.; Cardboard (contract) = 133,220 lbs.; Mixed Office Paper (contract) = 2,631,877 lbs.; Rubber, Waste Tires (MVE) = 10,290,980 lbs.

Grand Total by Material

**Note on Reporting:** Figures reported by agencies include data reported from contract or other centralized sources of information (i.e., MVE). Some agencies may not appear in this chart or agencies that are listed on the chart may not have a figure for a certain material (i.e., mixed office paper). This may be due to use of recycling services contracts and the way data is reported from these contracts. Typically data is reported by building or region and it is not feasible to track collection data for agencies located in a multi-agency building or regional setting.

24,291,388

## FY05 Department Reports of Materials Recycled (cont.)

Number of Items Recycled	Number of Gallons Recycled													
	Books-Bound Publications	Fluorescent Lamps	Incandescent Lamps	Inkjet & Toner Cartridges	Magnetic Media	Fuel/Oil Filters	Pallets	Tyvek Envelopes	Antifreeze	Diesel Fuel	Gasoline	Oil, Motor	Oil, Used Cooking	Paint/Solvents
Attorney General				61										
Elementary & Secondary Education				94										
Agriculture				13		60						200	525	
Conservation	30	1,775	121			425			680		300	2,420		39
Corrections		5,268	50	2,282	15	231	1,750		625			3,096	15,012	145
Economic Development					48									
Treasurer's Office					157									
Health & Senior Services					153									
Higher Education		49,942	151											
Insurance					78									
Labor & Industrial Relations		1,222												
Mental Health	800			233			36					1,284	1,120	
Natural Resources	12	1,213		134			2	375				236		
Office of Administration				55	1,440									
Public Safety		5,302		68		5,930	800	100	492	2,000	68	15,545	317	
Social Services	100				2,996			500						
Transportation		6,343	14,553	1,400	200	1,200	1,500		355	395		6,750	180	275
<b>TOTALS</b>	<b>942</b>	<b>71,065</b>	<b>14,875</b>	<b>8,916</b>	<b>1,655</b>	<b>7,846</b>	<b>4,588</b>	<b>475</b>	<b>2,152</b>	<b>2,395</b>	<b>368</b>	<b>29,331</b>	<b>16,829</b>	<b>984</b>

## II. FY05 Overview: State Agency Waste Reduction / Recycling Accomplishments

### State of Missouri Opens “Green” Office Building

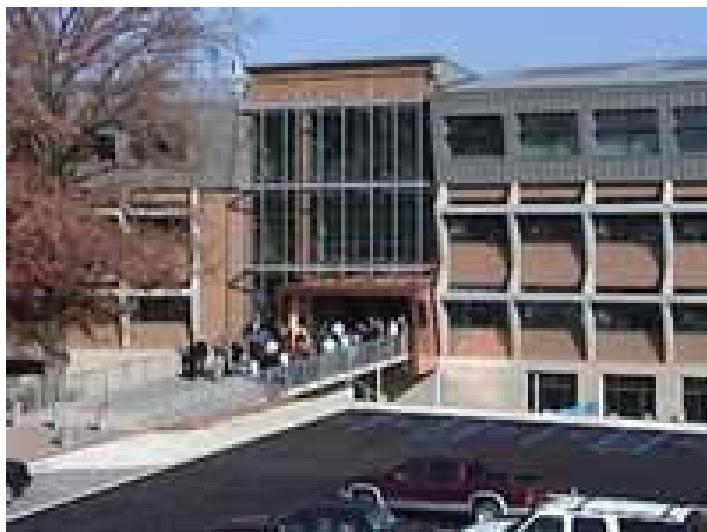
The Department of Natural Resources (DNR) consolidated several offices in FY05 with the opening of the Lewis & Clark State Office Building. This project marked the state of Missouri's first effort to construct a building with sustainability in mind and provided DNR an opportunity to demonstrate its mission to Missourians.

The state sought Leadership in Energy & Environmental Design (LEED™) certification for this new building to help guide construction and gain recognition for the completed project. The U.S. Green Building Council administers the LEED™ certification process by rating projects based on five criteria: site sustainability, energy and atmosphere, indoor environmental quality, material and resources, and water efficiency. This report focuses on the criteria of “material and resources” since this relates to recycling.



Materials used in construction met federal recycled material content requirements, which helped to sustain markets for recycled products. Purchasing these recycled-content materials also had an indirect impact of reducing landfill use. For example, the concrete used in construction contains 25 percent fly ash. Coal fly ash is a byproduct of coal combustion and can be added to concrete for construction in typical structural concrete applications. Bricks from a demolished building were reused to construct exterior features such as walkways, benches, and crushed brick was used as a landscaping material.

In addition to utilizing recycled-content materials for construction, over 85% of the construction and demolition waste was recycled—thereby providing more raw materials for manufacturers to make recycled-content products. This building project provides an excellent illustration of the recycling concept of “**closing the loop**”—where waste materials were collected for recycling **and** recycled-content products were purchased.



The building was not only constructed with reused and recycled-content materials, but also was designed with recycling in mind. Each of the building's four floors has its own recycling room. A paper chute (much like a laundry chute) runs from the fourth to first floors of the building allowing employees to conveniently recycle office papers. Removing paper from the building is easier since the first floor recycle room serves as a central collection point.

Currently each recycle room allows employees convenient access to recycle mixed office papers, cardboard, aluminum, plastic bottles, rechargeable batteries, and ink jet cartridges. DNR employees also collect food waste for composting.

# Office of Administration Nets Significant Savings with Office Panel Refurbishing Project

Many state agencies purchase new modular office systems (“cubicles”) from Missouri Vocational Enterprises (MVE). However, many agencies are unaware that MVE also provides an office panel refurbishing service. The Office of Administration’s Division of Facilities Management, Design and Construction (OA/FMDC) realized significant savings on one project where refurbished panels were purchased from MVE. (see box to right) OA/FMDC’s decision to refurbish these panels not only reduced the state’s cost, but also reduced the amount of waste destined for the landfill.

When office panels are refurbished only the fabric and—when necessary—the hardware are replaced. All other parts of the panel are reused. Agencies can realize substantial savings on office panels by purchasing refurbished systems as opposed to new. In FY05 state agencies utilizing MVE’s refurbishing service realized a combined savings over a quarter million dollars. (see box to right)

## Office Panel Refurbishing Facts

### OA/FMDC Project

Cost of Refurbished Panels = \$6,439

Cost of New Panels = \$32,551

Savings to the State = \$26,112

### FY05 Combined Agency Savings

\$252,411 (State agencies that purchased refurbished systems instead of new from MVE.)

## Styrofoam Recycling

In FY05 the Office of Administration’s Information Technology Services Division (OA/ITSD) approached the Missouri State Recycling Program (MSRP) about recycling expanded polystyrene (styrofoam). OA/ITSD anticipated a large amount of styrofoam waste would be generated from the installation of several hundred new desktop computers. This inquiry led the MSRP to sponsor a pilot project to determine the feasibility of recycling styrofoam.



A large volume (see box below) of styrofoam was recycled by a company that applies a non-toxic chemical solution to the material. The chemical dissolves the styrofoam—creating a styrofoam solution. It works much like placing an alkaseltzer into water. The styrofoam solution is then used for various applications such as “cold seal” crack repair on Missouri’s highways.

All of the styrofoam recycled came from the Truman building where there is a 43 cubic yard trash compactor. Since styrofoam does not compact efficiently the Truman Building trash compactor would have been filled many times. (see box below) The cost of Truman building trash service is based on the number of pick ups. The amount of styrofoam recycled during this project resulted in tangible, measurable savings to the state.

This project did not take into account labor and storage costs; however, the savings that were measured may warrant a follow up cost-benefit analysis that considers these costs. Styrofoam is a unique component of the waste stream in that it does not weigh much, but its volume can be significant. Since styrofoam cannot be compressed easily it can occupy a great deal of space in a trash receptacle. Most trash services charge for the number of pick ups and not the weight picked up. Therefore, styrofoam has the potential to significantly increase waste hauling costs for certain state agencies.

From an environmental standpoint, recycling styrofoam has value as well. One study indicates it would take over 2000 years for styrofoam to biodegrade. Once in the landfill styrofoam not only takes up a great deal of space, but can also slow the degradation of other waste products in the landfill because styrofoam can isolate other trash from dirt and water which are necessary for biodegradation to occur.

## Styrofoam Recycling Project Facts

Weight of Styrofoam Recycled = 1200 lbs.

Volume of Styrofoam Recycled = 269 cubic yards

Size of Truman Building Trash Compactor = 43 cubic yards

Number of Times Truman Trash Compactor Would Have Been Filled = 6.26

Cost to Have Truman Trash Compactor Picked Up = \$320.46

Cost to Throw Away Styrofoam = \$2006.08

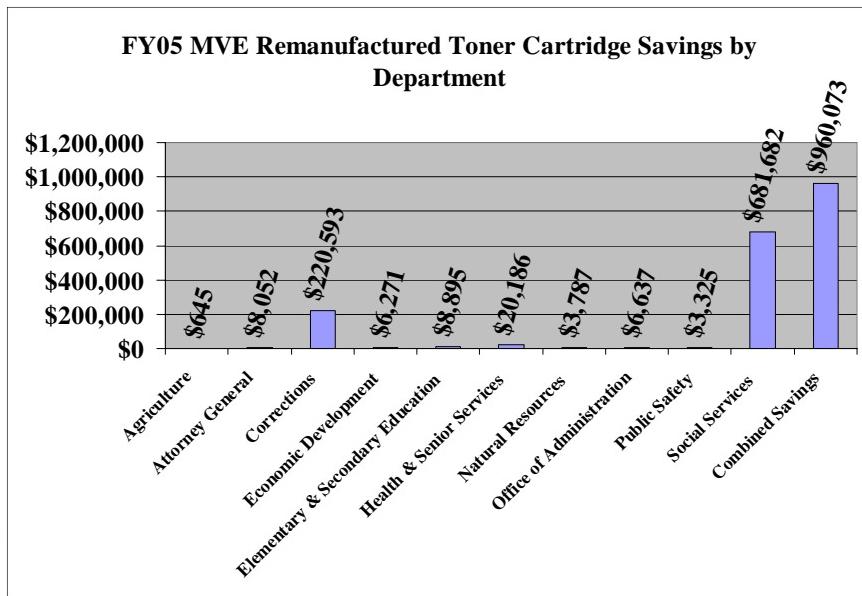
Cost to Recycle Styrofoam = \$436.60

Savings to State = \$1569.48

## Remanufactured Toner Cartridges: State Agency Savings

Another focal point for the Missouri State Recycling Program in FY05 was to promote state agency usage of Missouri Vocational Enterprise's (MVE) toner cartridge refill service. This service has been in operation for about ten years and provides state agencies an opportunity to realize significant savings and reduce waste by reusing toner cartridges.

The chart to the right illustrates combined agency savings in FY05 of nearly one million dollars. As noted in the table below, savings for toner cartridge procurement nearly doubled from FY04 to FY05 for agencies utilizing MVE's toner cartridge refill service.



Note: Savings is estimated by comparing MVE toner cartridge pricing to non-recycled toner cartridge pricing from the office supplies contract.

MVE's Remanufactured Toner Cartridges: Measures of Growth	FY04	FY05	% Increase
State Agency Savings	\$518,284	\$960,073	85%
MVE Customer Base	320	434	36%
Number of Cartridges Remanufactured	3,271	5,458	67%

## Social Services Establishes No-Cost Recycling Services Contract

The Department of Social Services (DSS) with assistance from the State Recycling Program established a no-cost recycling services contract for its offices located at 9900 Page Ave in St. Louis. Prior to FY05, Social Services was paying for recycling services at this location. Service started in April, 2005 and during the first three months of service 4,793 pounds of paper were recycled from this location. While Social Services realized a small amount of revenue from this paper, the savings from eliminating the cost of prior recycling services is more significant.

## State Agency Recycling Efforts Avoid Cost of Waste Disposal

The efforts of agencies statewide resulted in a combined total of 12,146 tons (see chart on p. 9) of materials recycled in FY05. If this amount of material had been sent to the landfill it is estimated the State of Missouri would have paid at least **\$439,321** in waste disposal costs. It is possible to calculate this cost avoidance based on the average tipping fee charged to waste haulers in Missouri. Tipping fees are paid by waste haulers for each ton of trash dumped in Missouri's landfills. The average tipping fee in Missouri in FY05 was \$36.17 per ton.

The tipping fee is only one cost of doing business as a waste hauler. In addition to the tipping fee, a waste hauler includes labor and transportation costs in the actual amount charged to its customers. Therefore, utilizing the average tipping fee to calculate cost avoidance represents a conservative estimate. The actual cost avoidance realized by state agencies in FY05 would likely be significantly higher.

# FY05 Overview: Recycled Content Procurement

## Recycling Program Guidelines for Buying Recycled

The State Recycling Program works with agencies to increase procurement of products containing recycled content. This is commonly referred to as “**closing the loop**”. Recycling can only be successful if products produced from recyclable materials are then purchased. The State Recycling Program has adopted the Environmental Protection Agency’s (EPA) “**Comprehensive Procurement Guidelines (CPG)**” for recycled content products as a roadmap for the State of Missouri to continue working towards “closing the loop”.

### Evaluation Criteria for Products Listed Under CPG:

- Availability of product
- Impact of procurement on the solid waste stream
- Economic and technological feasibility of producing the product
- Other uses of the recovered materials used to produce the product

There are 8 categories designated in the CPG. Product categories and individual items in these categories are listed below. **Products identified by the recycling symbol**  **also appear in the Missouri Recycled Products Directory** published by the Environmental Improvement and Resources Authority’s Market Development Program. This publication is a good resource for locating recycled products manufactured and distributed in Missouri. Additional information about this directory may be found in the “Recycling Resources” section on p. 18 of this report.

Product Fact Sheets may be found for each of these categories on the internet at the following address:

<http://www.epa.gov/epaoswer/non-hw/procure/factshts.htm>

## Comprehensive Procurement Guidelines: Recycled Product Categories

### 1. Construction Products

-  **Building Insulation**
  - Carpet (polyester)
  - Carpet Cushion
  - Laminated Paperboard
-  **Cement & Concrete Containing**
  - Coal fly ash
  - Furnace slag
  - Ground granulated blast
  - Cenospheres
  - Silica fume
- Consolidated & Reprocessed Latex Paint
- Floor Tiles
- Flowable Fill
- Modular Threshold Ramps
- Nonpressure Pipe
-  **Patio Blocks**
  - Railroad Grade Crossing Surfaces
-  **Roofing Materials**
-  **Shower & Restroom Dividers/Partitions**
-  **Structural Fiberboard**

### 3. Park & Recreation Products

-  **Park Benches & Picnic Tables**
-  **Plastic Fencing**
-  **Playground Equipment**
-  **Playground Surfaces**
- Running Tracks

### 6. Vehicular Products

- Engine Coolants
- Rebuilt Vehicular Parts
- Re-Refined Lubricating Oils
- Retread Tires

### 4. Paper Products

-  **Commercial/Industrial Sanitary Tissue (paper towels & toilet paper)**
  - Miscellaneous Papers
  - Newsprint
-  **Paperboard & Packaging Products**
-  **Printing & Writing Papers**

### 7. Transportation Products

- Channelizers
- Delineators
- Flexible Delineators
- Parking Stops
- Traffic Barricades
- Traffic Cones

### 2. Landscaping Products

-  **Compost Made from Yard Trimmings or Food Waste**
  - Garden & Soaker Hoses
-  **Hydraulic Mulch**
  - Lawn & Garden Edging
-  **Plastic Lumber Landscaping Timbers & Posts**

### 5. Nonpaper Office Products

-  **Binders, Clipboards, File Folders, Clip Portfolios, & Presentation Folders**
-  **Office Furniture**
-  **Office Recycling Containers**
-  **Office Waste Receptacles**
  - Plastic Desktop Accessories
  - Plastic Envelopes
  - Plastic Trashbags
-  **Printer Ribbons**
-  **Toner Cartridges**

### 8. Miscellaneous Products

-  **Awards & Plaques**
  - Bike Racks
  - Blasting Grit
  - Industrial Drums
  - Manual-Grade Strapping
-  **Mats**
-  **Pallets**
  - Signage
  - Sorbents

## State Agencies Close the Loop with Paper Procurement

Paper is the most common recycled product purchased by state agencies. In 1990, RSMo 34.032 established attainment goals for state agencies to purchase certain percentages of products made from post-consumer recovered materials. One goal was that 60% of paper products purchased by the State of Missouri contain post-consumer materials by the year 2000. This goal has been met for the past four fiscal years; however, in FY05 41% of paper purchased by state agencies contained recycled-content fibers.

Purchases of Recycled Paper Compared to Virgin Paper						
Product Category	Recycled Paper Purchases	Total Category Purchases (Recycled + Virgin)	Recycled Paper Purchases as a % of Total Purchases in Product Category	Recycled Paper Purchases as a % of Total Purchases in Product Category		
	FY05	FY05	FY05	FY04	FY03	FY02
Fine Paper Products (office, copy,fax)	\$772,352	\$3,540,655	22%	70%	60%	66%
Course Paper Products (napkins, towels, tissues)	\$445,461	\$535,164	83%	94%	90%	86%
Forms (continuous & snap out)	\$567,861	\$1,332,455	43%	90%	84%	60%
Envelopes (Plain or Printed)	\$993,847	\$1,125,697	88%	97%	98%	91%
Printing by contractors (40% of total charge)	\$734,602	\$2,128,543	35%	61%	50%	90%
Overall Totals	\$3,514,123	\$8,662,514	41%	74%	67%	76%

### Environmental Benefits of Buying Recycled Paper

Although recycled paper tended to be more expensive than virgin paper in FY05 it is important to note that there were environmental savings associated with buying recycled paper. The State of MO spent \$772,352 on recycled “Fine Paper Products” in FY05. A majority of this paper is printer/copier paper made with 30% post-consumer recycled paper. Purchasing this type of recycled paper versus virgin paper translates into the following estimated savings:

- ♻️ 6,319 trees
- ♻️ 1,843,117 gallons of water
- ♻️ 8 tons of air pollution
- ♻️ 1,079,540 kw/hours of electricity
- ♻️ 3.68 billion Btu—enough energy to power 368 homes for a year!

# FY05 Department Reports for Recycled Content Product Procurement

Non-Paper Recycled Content Procurement	Attorney General	Treasurer's Office	Agriculture	Conservation	Corrections	Economic Development	Elementary & Secondary Education	Health & Senior Services	Insurance	Mental Health	Natural Resources	Office of Administration	Public Safety	Revenue	Social Services	Transportation	TOTALS
Ammunition-Lead & Brass				\$6,325								\$750					\$7,075
Antifreeze																\$2,300	\$2,300
Asphalt Products																\$22,500,000	\$22,500,000
Batteries-Rechargeable					\$35,243											\$15,500	\$50,743
Building-Construction						\$44,983											\$44,983
Computer-Copy Supplies																\$9,300	\$9,300
Cardboard Boxes		\$260			\$114,741					\$65		\$89	\$436	\$20,840			\$136,431
Glass Beads																\$10,000,000	\$10,000,000
Ink & Toner Cartridges	\$4,698		\$742		\$114,579	\$2,884	\$6,574	\$10,905	\$257	\$5,652	\$1,864	\$3,904	\$4,992		\$424,825	\$1,600	\$583,476
Janitorial Supplies				\$219		\$950		\$13,804					\$3,346	\$566			\$18,885
Lumber, Plastic						\$4,131											\$4,131
Office Supplies		\$1,668	\$62		\$38,756	\$3,737	\$8,383		\$1,380	\$4,415	\$5,383	\$1,176	\$5,480	\$4,284		\$165,000	\$239,724
Paint						\$8,362										\$5,500,000	\$5,508,362
Pallets / Skids													\$900				\$900
Promotional Items													\$1,019				\$1,019
Remanufactured Furniture												\$6,439					\$6,439
Re-refined Oil					\$250								\$32,670			\$5,000	\$37,920
Signs						\$500										\$3,000,000	\$3,000,500
Tires, Retread																\$75,000	\$75,000
Vehicle Maintenance Supplies						\$18,483					\$64		\$54				\$18,601
Total Dollars Spent on Recycled-Content Products in FY05.																	\$42,245,789

## II. FY05 Overview: Missouri's State Recycling Fund

FY05 was a record year in terms of revenue created from state agency recycling efforts. Revenues generated in FY05 increased 60% from FY04. Monies from the collection of recyclables are deposited into the State Recycling Fund which is managed by the Office of Administration. These funds pay for recycling related expenses.

The chart to the right summarizes Recycling Program revenues and costs from FY00-FY05. Combined recycling revenues from FY95-99 were \$136,429 and costs were \$50,973 for this same five year period.

Sources of revenue from recycling in FY05 included the Jefferson City, Kansas City, and Springfield recycling services contracts. The Department of Corrections (DOC) and Department of Revenue (DOR) also generated revenue that was deposited into the Recycling Fund. The top three sources of recycling revenue in FY05 were the Jefferson City recycling services contract (65%), DOC (25%), and DOR (9%). Most revenue was generated from the sale of mixed office paper; however, the state is also paid for other materials such as baled cardboard and aluminum.

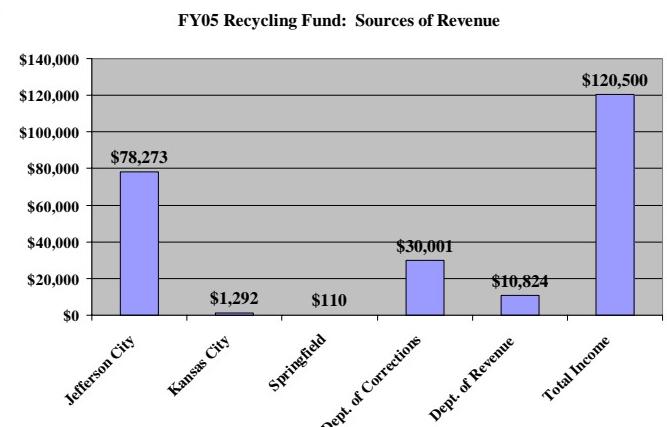
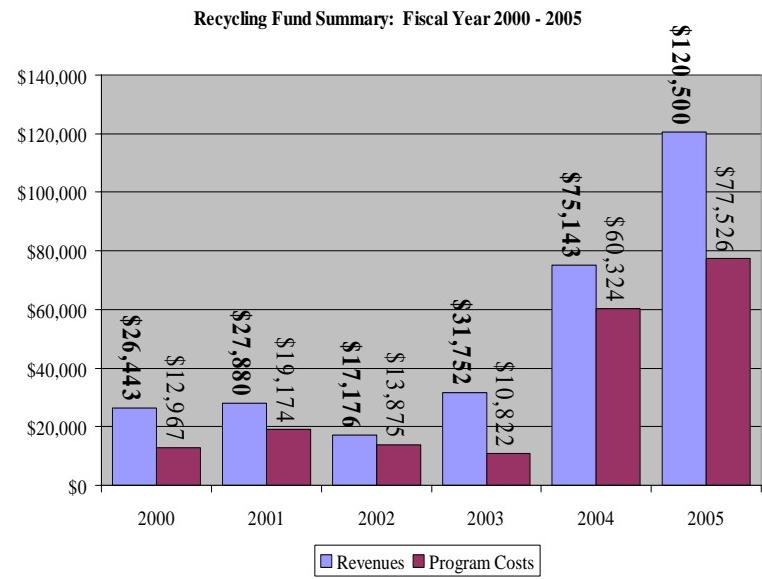
Ongoing investments in state government's recycling infrastructure were made in FY05 in the areas of paper, aluminum, and cardboard recycling. For instance, aluminum can containers were replaced at the Capitol due to problems with the old containers leaking.

The Missouri State Recycling Program (MSRP) continued working with the Department of Corrections (DOC) in FY05 to finance recycling programs at its various facilities around Missouri. Recycling revenues offer DOC an opportunity to continue building recycling programs at its various facilities. In addition, DOC has three facilities with in-vessel composters that were funded by grants from the Department of Natural Resources. These commercial scale composting systems have allowed DOC to recycle cafeteria food waste and significant savings were realized on waste hauling in FY05. Another result of DOC's composting operations has been a new recycling related expense. In order for the composting process to work, lime and sawdust are added to the food waste and these materials are purchased with monies from the Recycling Fund.

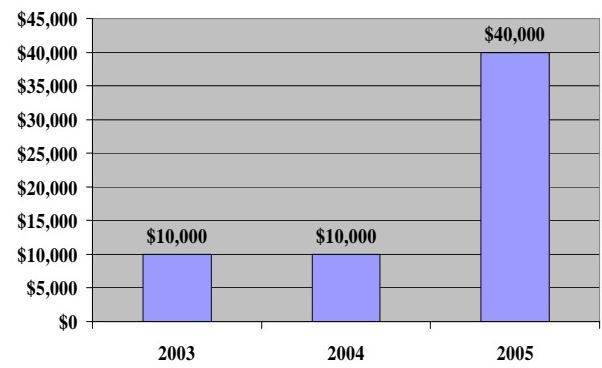
### Contributions to the Heating Assistance Program (Utilicare)

Excess revenues from the sale of recyclable materials are transferred to the Heating Assistance Program managed by the Department of Social Services pursuant to RSMo 34.032. The Heating Assistance Program (HAP) - also known as Utilicare - provides financial assistance to low-income Missourians for heating their homes during winter months. The State Recycling Program has transferred a total of **\$135,000** to the HAP since 1995.

As a result of state employee recycling efforts, the State Recycling Program was able to make the largest one year contribution in FY05. The **\$40,000** transferred to the HAP in FY05 will help approximately 200 households in Missouri to pay their heating bills.



Fiscal Year 2003 - 2005 Recycling Monies Transferred to the Heating Assistance Program



### **III. FY06 State Recycling Program Goals**

The State Recycling Program believes the probability for long term success of a recycling program increases as more employees see value in the program. Therefore, in FY06 the State Recycling Program plans to focus on the following initiatives that will assist state agencies' with their recycling efforts.

- Increase number of locations where state agencies and employees have convenient access to rechargeable battery and inkjet cartridge recycling services by 25.
- Assist state departments in determining the most practical and efficient methods to meet the needs of state agencies for records destruction (shredding).
- Increase availability of recycled-content products on statewide contracts.

### **IV. Recycling Resources**

#### **Missouri Department of Natural Resources**

##### **Solid Waste Management Program**

Internet: <http://www.dnr.mo.gov/env/swmp/homeswmp.htm>

Email: [swmp@dnr.mo.gov](mailto:swmp@dnr.mo.gov)

Phone: **1-800-361-4827 or 573-751-5401**

The Solid Waste Management Program (SWMP) works with citizens, businesses, industry, and government to continue increasing material reuse and recycling. The SWMP web page is an excellent resource for information dealing with all aspects of solid waste management in Missouri.

#### **Office of Administration**

##### **Division of Purchasing & Materials Management**

##### **Missouri State Recycling Program**

Internet: <http://www.oa.mo.gov/purch/recypro.html>

Email: [recycling@oa.mo.gov](mailto:recycling@oa.mo.gov)

Phone: **573-751-3384 or 573-751-2387**

The Missouri State Recycling Program (MSRP) works with state agencies to increase purchases of recycled content products, reduce their waste stream and increase collection of materials for recycling. The MSRP web page is a good resource for state contracts that offer recycled content products as well as recycling services.

#### **Missouri Department of Natural Resources**

##### **Environmental Improvement Energy Resources Authority**

##### **Recycled Products Directory**

Internet: <http://www.dnr.mo.gov/eiera/Missouri%20Market%20Development%20Program.htm>

Email: [eiera@dnr.mo.gov](mailto:eiera@dnr.mo.gov)

Phone: **573-751-4919**

Published by the Department of Natural Resources Environmental Improvement Energy Resources Authority Market Development Program. An excellent resource for finding businesses based in Missouri that produce recycled content products.

#### **Missouri Department of Corrections**

##### **Missouri Vocational Enterprises (MVE)**

Internet: <http://www.doc.missouri.gov/mve>

Phone: **1-800-392-8486 or 573-751-6663**

The Department of Corrections vocational training program where the following products and services meet "buy recycled" criteria. MVE products and services are only available to state agencies and other tax-supported entities.

- Toner Cartridge Refill Service: **573-751-3224 x. 1260**
- Tire Recycling Service: **573-635-3825**
- Corrugated Boxes: 40% post-consumer recycled content
- Envelopes: 30% post-consumer recycled content
- Office Panel (cubicle) Refurbishing Service